formulations and interpretations of his observations were unduly narrow and misleading and did not, as Hogben supposes, provide a completely adequate substitute for what the latter calls ' introspective philosophy '—that is to say, for psychology.

Pavlov's fundamental experiment was as follows. If food is presented to a hungry dog, his mouth waters. This secretion of saliva was called ' an unconditioned reflex'. That was a misnomer, a begging of a very important question, and the beginning of the trouble, as Pavlov himself virtually admits in his later papers. For this so-called reflex was treated as a simple isolated mechanical response to a physical stimulus. In reality it is a small feature of a large instinctive reaction of the whole organism, of which the first step is a perceptual recognition of the food as such, leading to an endeavour to obtain and ingest the food. Pavlov showed in a multitude of wonderfully fine experiments that, if some sensory signal be given to the dog (such as the sound of a bell) again and again immediately before the presentation of the food, then after a variable number of repetitions of this sequence, the dog's mouth will begin to water in response to the signal, even though no food be given; and will do so again and again, yet, if food be not presented immediately after each signal, for a limited number of repetitions only.

Now, the question whether the dog, on the signal being given, consciously hears the signal and consciously expects the food to appear, is one which may be left

entirely aside. For, though we may form an opinion as to the probability in the case, it is true, as the behaviourists assert, that we can never absolutely prove that the dog reacts consciously; just as no one of us can ever absolutely